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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,474	06/19/2006	Jean-Francois Longchamp	10191/4532	2517
26646	7590	06/24/2008	EXAMINER	
KENYON & KENYON LLP			SUNG, CHRISTINE	
ONE BROADWAY			ART UNIT	
NEW YORK, NY 10004			PAPER NUMBER	
			2884	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/583,474	LONGCHAMP ET AL.	
	Examiner	Art Unit	
	CHRISTINE SUNG	2884	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-15 and 21-24 is/are rejected.
- 7) ☒ Claim(s) 16-20, 23 and 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>0606</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 12-13 and 21-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Yutani (US Patent 6,619,130 B1).

Regarding claim 12, Yutani discloses a pressure sensor comprising:

a diaphragm which is at least one of differently deformable and locally changeable by pressure differences (column 8, lines 51-53), at least one functional section of the diaphragm having a material which has at least one of: i) properties of a black-body radiator, and ii) an emissivity essential for detection in a spectral radiation range corresponding to a temperature of the diaphragm under its conditions of use (diaphragm displacement is measured by the thermal detection unit, thus the diaphragm must inherently have an emissivity detectable by a thermal sensor); and

a radiation receiver unit which detects at least a portion of radiation emitted by the at least one functional section of the diaphragm, the radiation receiver unit including at least one infrared radiation sensor (column 8, lines 55-60).

Regarding claim 13, Yutani discloses that the functional section is positioned in a central area of the diaphragm (column 5, lines 10-14) and is implemented by a coating with the material, and the functional section is surrounded by a section which has a lower emissivity at least in the

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radiation range corresponding to the temperature of the diaphragm under the conditions of use (The thermo-sensitive film is positioned in various parts of the diaphragm, see figure 1(a) and has a different emissivity than the diaphragm, element 6, so that the receiving element can detect changes in the diaphragm).

Regarding claim 21, Yutani discloses that the infrared radiation sensor has a radiation sensitivity tailored to an infrared radiation of the diaphragm, and the radiation receiver unit is adapted to an oscillation frequency of the diaphragm (The thermal sensor, see claim 1, detects changes in IR radiation when the diaphragm changes due to pressure, thus it is inherent that the thermal sensor, must be tailored to be sensitive to changes in IR radiation of the diaphragm).

Regarding claim 22, Yutani discloses that the infrared radiation sensor has one of a pyroelectric detector, a bolometer, or a thermopile (see claim 1, thermal sensor).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 14-15 rejected under 35 U.S.C. 103(a) as being unpatentable over Yutani (US Patent 6,619,130B1)

Regarding claims 14 and 15, Yutani discloses the limitations set forth in claim 12 and further discloses that the material is metallic (see column 3, lines 16-17). Yutani does not specify the type of metal, however it would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the claimed material since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 227 F.2d 197, 125 US PQ 416 (CCPA 1960).

6. Claims 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yutani (US Patent 6,619,130B1) in view of Yalowitz (US Patent 5,339,070).

Regarding claim 23, Yutani discloses the thermal sensor (see claim 1) but does not specify a cooling device assigned to the infrared radiation sensor. However, cooling devices are well known elements in IR sensors, as disclosed by Yalowitz (see column 3, lines 59-62). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have included the conventional cooler as disclosed by Yalowitz with the invention as disclosed by Yutani in order to decrease the effects of extraneous IR radiation from being detected, thereby increasing the accuracy of the detected signal by the IR sensor.

Regarding claim 24, Yutani discloses the limitations disclosed in claim 12 but does not specify an infrared filter for selecting a radiation band relevant to a pressure measurement is

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connected upstream from the infrared radiation sensor. However, IR filters are well known elements in IR sensors as disclosed by Yalowitz (see column 3, lines 59-62). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have included a conventional IR filter with IR sensor disclose by Yutani in order to reduce detection of erroneous radiation.

Allowable Subject Matter

7. Claims 16-20 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

- a. Regarding claim 16, none of the prior art of record specifies or makes obvious the pressure sensor, namely the positioning of the infrared conductor which is transparent at least in the spectral radiation range corresponding to the conditions of use of the diaphragm, the infrared conductor being positioned between the radiation receiver unit and the diaphragm.
- b. The balance of claims are allowed for at least the reasons cited above.
- c. Regarding claim 25, none of the prior art of record specifies or makes obvious a pressure sensor namely, the radiation receiver unit which has two infrared radiation sensors, upstream from which infrared filters of different spectral transparencies are positioned and wherein an analysis unit is implemented in such a way that radiation components detected by the two infrared radiation sensors are separated into the

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components originating from deflections of the diaphragm and the components originating from temperature changes of the diaphragm.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTINE SUNG whose telephone number is (571)272-2448. The examiner can normally be reached on Monday- Friday 9-5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christine Sung/
Primary Examiner
Art Unit 2884

CS